



Submission to Outer Sydney Orbital Transport Corridor



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Executive Summary

The planning by all tiers of Government for the future delivery of an effective and efficient transport infrastructure network in the Greater Sydney Region, will require both considerable vision and courage. Council acknowledges there are many planning challenges and opportunities in Western Sydney in the years ahead, all of which must be met with a collaborative, coordinated approach by Australian, State and Local Government.

As a part of Western Sydney, Camden Council and the Camden LGA community are located at the forefront in meeting these challenges and opportunities; undergoing a rapid urban transformation characterised by increasing population. Council is tasked with the responsibility of representing both this emerging community (projected to be 230,000+ by 2036) as well as an existing population (approx. 90,000 as at 2018).

The NSW Government's proposed *Outer Sydney Orbital Transport Corridor (OSO)* is a project of transport planning significance for Western Sydney and the Camden LGA, and its community. It is significant not only in the potential impact it will have in facilitating integrated land-use and transport planning for the success of Western Sydney, but is also significant for the potential adverse impact it will have on local landowners, residents, communities, the environment and heritage items.

Council does not support the current at-grade alignment of the OSO. Any subsequent review of the OSO alignment by Transport for NSW (and associated supporting information) must be exhibited for further review and comment by all stakeholders.

Further to the potential adverse impacts on local landowners and residents, Council notes its acknowledgement and support for the many concerns raised by our community, and recognise that community members outside of the corridor have not been adequately consulted with and that the response to these issues has been unsatisfactory to date.

Camden Council has identified a number of key issues and concerns regarding the transport planning for the proposed orbital in the Camden LGA and Western Sydney, highlighting points of concern, implications and recommendations for project outcomes. Council would welcome the opportunity to engage further with Transport for NSW in collaboration with the Camden LGA community, in discussing these issues, to assist in resolving the concerns associated with the proposed orbital project.

Key Messages

To assist Transport for NSW in assessing the following submission, Council's key messages are grouped to align with the issues identified in the *Outer Sydney Orbital Corridor Study – Draft Strategic Environmental Assessment* report; namely:

1. The recommended corridors;
2. Land use and property impacts;
3. Loss of agricultural land (**which is an extension of *land use and property impacts***);
4. Traffic and transport;
5. Socio-economic impacts;
6. Heritage;
7. Biodiversity and air quality;
8. Surface water and flooding;
9. Landscape and visual amenity;
10. Soil and geology; and
11. Noise and vibration.

As part of this Executive Summary, following are the key issues identified by Council through a merit-based assessment of Transport for NSW's exhibition material for the proposed orbital, coupled with representations made by the affected community and key stakeholders. Council explores each of these issues in further detail, in the main section of this submission.

(Source: Camden Council – State of the Environment Report 2015/16)



1. The recommended corridors

Key Issue for the Camden LGA – Council does not support the exhibited surface (at-grade) OSO corridor alignment due to the adverse impact it would have upon the Camden LGA. Council could only offer support to the OSO project if the corridor was provided underground, wherever it is likely to directly impact existing residential, commercial, heritage and environmental land.

If the exhibited corridor is unable to be undergrounded, Council would seek that Transport for NSW review the alignment to address the issues raised in this submission, and re-exhibit the amended corridor for further comment.

Council acknowledges the strategic significance of an OSO Transport Corridor, and the need for the NSW Government's early identification and protection of its alignment. However, **Council does not support the current at-grade OSO alignment, and can only offer support to the OSO project subject to the future orbital corridor being provided underground, wherever it is likely to directly impact existing residential and commercially occupied property, as well as land of heritage and environmental significance.**

If the exhibited corridor is unable to be undergrounded, Council insists that Transport for NSW review the alignment to address the issues raised in this submission, and re-exhibit the amended corridor for further comment.

While the merit-based approach taken by Transport for NSW is noted in determining a recommended alignment for the proposed corridor, this rationale provides little (if any) comfort to residents/landowners impacted by the proposal. For all the projected benefits associated with an OSO, it also has the potential to divide communities. Council strongly recommends the undergrounding of the OSO wherever it impacts existing/established residential, commercial, heritage and environmental land to reduce the severance of communities, both existing and future.

2. Land use and property impacts

Key Issue for the Camden LGA – there is an urgent need for TfNSW to determine a timeframe for corridor protection/acquisition and the construction of strategic road and rail infrastructure, to address the potential adverse impacts on property owners affected by the corridor, and to address the inconsistencies between the proposed corridor and Council's Rural Lands Strategy and Rural Land Study.

Council is equally committed to both existing customers (community) as well as advocating for future customers – our community that will grow throughout the Camden LGA over the next 30+ years. To ensure existing and future customers/community are best served, it is important that Transport for NSW work with the community, Council and the Greater Sydney Commission in determining definitive timeframes for corridor protection, future construction and a timely land acquisition strategy; as well as clarifying permissible interim uses, with a view to circumventing any adverse planning outcome on any impacted landowner (in the event of an 'at-grade' corridor alignment).

The planning principles enshrined in Council's *'Rural Lands Strategy 2017'* (which was informed by Council's *'Rural Land Study'*) require direct consideration in identifying the proposed OSO alignment. Particular regard must be given to the impact of the proposed corridor upon Council's remaining rural and agricultural lands which play an important role in Sydney's food supply and the rural history and character of the Camden LGA. A copy of the *Rural Lands Strategy 2017* and *Rural Land Study* is provided as an **attachment** to this submission.

As part of the further investigation into the OSO, Transport for NSW needs to develop a thorough cost-benefit analysis for the proposed project, and make this information publicly available as part of subsequent consultation stages with affected stakeholders.

3. Loss of agricultural land

Key Issue for the Camden LGA – the impacts that the corridor would have upon Camden's agricultural lands and Camden's agricultural economy.

Agricultural production in the Camden LGA is significant. Camden is a significant producer of grapes for wine, cauliflowers, lettuce, cultivated turf, sheep and lambs, dairy cattle, beef cattle and crops and pastures for hay. Further, tourism in the Camden LGA is important financially to the rural sector, with strong growth potential.

Agricultural and rural land use currently accounts for 50% of the Camden LGA. The development of the South West Growth Area for urban purposes will reduce the total amount of agricultural and rural land to 33% of the LGA. The proposed OSO corridor will reduce this even further.

4. Traffic & transport

Key Issue for the Camden LGA – the need for integrated, contingent transport planning, that quantifies impacts from the OSO on the local road network (e.g. east/west connections), justified by a robust cost-benefit analysis and traffic modelling data.

As part of its visionary initiatives for Western Sydney and the Greater Sydney Region, to facilitate the successful delivery of integrated transport infrastructure, Transport for NSW should consider a vision that develops a well-connected, well-designed and free-flowing road network supported by appropriate infrastructure for a growing city that provides effective movement of people and goods within the local area and broader region.

Subject to a finalised alignment of the proposed OSO, the potential adverse impacts on the local road network need to be quantified by Transport for NSW. It is necessary to undertake comprehensive modelling to justify the need for east/west connections between the OSO and the Camden LGA local road network (other than Burragorang Road to the south, and Greendale Road to the north).

To advocate for sustainable transport planning in Western Sydney, a contingent planning approach is needed, in anticipation of any conceivable variables e.g. whether the extent of an orbital corridor may be different in the future, resulting from technological advancement (autonomous vehicles, electric-powered freight trucks).

Given the scale of the proposed orbital and its far-reaching impacts, more information is needed in the form of a cost-benefit analysis regarding alignment options, supported by up-to-date traffic modelling for the road network in Western Sydney.

5. Social and economic impacts

Key Issue for the Camden LGA – the need for an extensive investigation into the ‘human health’ impacts of the proposed OSO; need to engage with community outside of the OSO corridor that have not been directly consulted; to support economic growth in the Camden LGA, action is needed to relieve road congestion via infrastructure investment.

As part of the corridor protection process, the *Draft Strategic Environmental Assessment* report requires expansion to include detailed investigation into the anticipated implications for human health resulting from the proposed orbital, prior to proceeding any further with corridor protection e.g. adverse impacts from ‘just terms’ compensation and the land acquisition process, tax implications etc, and the absence of direct consultation with the community outside of the OSO corridor. From a social perspective, as evidenced through the representations made to Council by the affected community, **the currently proposed orbital is expected to have adverse impacts on both people and places.**

With the projected population growth in Western Sydney, both Australian and NSW government investment in transport infrastructure e.g. OSO, WSA, North South Rail etc. will influence core planning objectives, including affordable housing, connectivity, liveability, resilience and sustainability. Effective land-use and transport integration is required to ensure growth and investment outcomes occur as a result in Western Sydney.

Council is in support of the NSW Government’s vision of a system to support the Greater Sydney’s growing economy, acknowledging that strategic transport infrastructure such as the OSO can play a pivotal role in alleviating urban congestion and help stimulate business sectors such as tourism. Reduced congestion and improved travel times are a benefit of investment in an orbital corridor (subject to an appropriate alignment).

6. Heritage

Key Issue for the Camden LGA – there is a need, prior to protection of the proposed corridor, to comprehensively assess the impacts on items of heritage significance in the Camden LGA e.g. Denbigh Estate, Teen Ranch.

The Camden LGA includes several items of both Aboriginal and non-Aboriginal heritage significance, with the broader Macarthur area long referred to as the “birthplace of the nation’s wealth” in reference to its historical links via agriculture.

The historical significance of the areas in proximity to the proposed orbital corridor warrant a comprehensive review by Transport for NSW of the heritage components of the *Draft Strategic Environmental Assessment* report as recently exhibited.

7. Biodiversity and air quality

Key Issue for the Camden LGA – Council and the Camden LGA community are passionate about the environment and human health (biodiversity and air quality). The OSO's potential adverse impact warrants further investigation by Transport for NSW before corridor protection occurs, to protect environmentally significant areas such as South Creek in the Camden LGA.

With the extent of environmentally significant land in the Camden LGA, there is a need to identify appropriate areas to offset vegetation (preferably in the Camden LGA), such as clearance of Cumberland Plain Woodland, prior to the finalisation of the proposed corridor alignment. This should also include a detailed assessment of the existing flora and fauna species including targeted surveys for threatened species, to guide the alignment of the proposed orbital corridor.

An Environment Impact Assessment is needed that critically evaluates the potential impacts on air quality in the Camden LGA of a proposed orbital, inclusive of the cumulative impacts of other major infrastructure projects proposed for Western Sydney e.g. WSA.

Council also notes that the South Creek corridor has been identified within the City Deal as an important environmental spine for the Western City, requiring restoration and protection. Without sufficient detail available in the SEA, Council insists that Transport for NSW give careful consideration to any possible impacts on this vital part of our region and continues to engage with Council and the community.

8. Surface water and flooding

Key Issue for the Camden LGA – that a definitive flooding assessment (including Probable Maximum Flood Assessment) is conducted for the proposed orbital, to mitigate any adverse impacts on the floodplain, Nepean River and other significant water bodies.

While Transport for NSW is currently at the 'corridor protection' stage of the orbital project, it is imperative that a definitive flood impact assessment is completed prior to proceeding to the next phase. For example, impacts on the 'Probable Maximum Flood' (PMF) are not referenced in the *Draft Strategic Environmental Assessment* report. A thorough investigation is required into the issue of surface water and flooding before a corridor for the orbital is protected.

9. Landscape and visual amenity

Key Issue for the Camden LGA – the need for a cost-benefit analysis between a surface and underground approach for the orbital; and the commissioning of a Landscape and Visual Impact Assessment which extends to the impacts resulting from the future construction of the orbital, and is not limited to the current corridor identification process.

Council acknowledges the provision of a project such as the OSO is significant in both its requirement for capital investment, any potential economic and transport benefits it

may yield, as well as its potential for impact on the community and local environment e.g. landscape and visual amenity. Consequently, it is important that the NSW Government prepare/disclose a Strategic Business case, or cost-benefit analysis for the orbital, even though it is only at the protection stage of the project. This information is important for Council and the community to understand how any adverse impact on the landscape and visual amenity is rationalised, in providing a broader context for the overall community benefit.

A holistic review of the implications of the proposed corridor via an Environmental Impact Assessment is crucial to enable the affected community to evaluate how the orbital will affect the landscape and visual amenity of the local area. This should include clear imagery prepared by Transport for NSW, projecting the scale of an OSO corridor overlaid on the local landscape (through pictures, mapping etc.), to demonstrate how a major transport corridor might look in the Camden LGA.

10. Soil and geology

Key Issue for the Camden LGA – the need for a thorough review of OSO's impact/interface with existing soil and geology conditions, prior to protecting a corridor, to ensure that any identified corridor can accommodate a major piece of infrastructure.

Transport for NSW has noted that issues such as mine subsidence pose a risk to the proposed orbital project. To quantify this risk, an early field investigation is needed for the full extent of corridor options, including geotech survey, to ascertain the integrity of conditions underground to determine their capacity to accommodate future OSO infrastructure.

11. Noise and vibration

Key Issue for the Camden LGA – need for a definitive Environmental Impact Assessment to determine adverse human health impacts, resulting from cumulative noise and vibration from the proposed OSO (combined with the Western Sydney Airport (WSA), North South Rail Line (NSRL), South West Rail Link (SWRL) Extension etc).

The liveability of the Camden LGA is partially under threat through the onset of community disturbance and annoyance resulting from infrastructure-associated noise and vibration. As part of this potential problem, an 'Environmental Impact Assessment' is needed for the orbital as a matter of urgency (which states the type and magnitude of impact, both pre-mitigation and post-mitigation) on noise and vibration. This assessment should evaluate the cumulative impacts resulting from other significant infrastructure projects in its proximity e.g. WSA, NSRL, SWRL Extension etc.

As part of any assessment process, multiple noise-rating background levels across all receptors (i.e. at multiple locations along the corridor, for a broad cross-section of receptor types) require testing, to ensure a thorough evaluation is conducted.

Ongoing engagement

Council notes that the extent of its previous feedback to Transport for NSW on the proposed corridor, prior to the release of exhibition material on 26 March 2018, is defined by its submission to the NSW Government’s ‘Outer Sydney Orbital Corridor Preservation’ report in 2015. A copy of Council’s previous submission is provided as an **attachment** to this document, for future reference by Transport for NSW.

8 | Outer Sydney Orbital corridor Identification | Consultation on a recommended corridor | March 2018

What is corridor protection?

Corridor protection is a process to identify and protect land that can be used for future infrastructure purposes. Community consultation is a key part of this process and ensures that local constraints and opportunities are fully understood.

This process has identified a recommended Outer Sydney Orbital corridor. Following further consultation with property owners, the final corridor will be recommended to the Department of Planning and Environment for protection.



Source: Transport for NSW – OSO Corridor Identification brochure

Regarding the previous consultation step (indicated by the red arrow), Council notes the many concerns raised by our community and recognise that community members outside of the corridor have not been adequately consulted with and that the response to these issues has been unsatisfactory to date. It is important in upholding the customer service standards set by Transport for NSW that steps are taken to redress this issue.

For example, as Transport for NSW would be aware, the Department of Planning & Environment’s ‘Planning guideline for Major Infrastructure Corridors’ provides direction for infrastructure agencies on the planning mechanisms for corridor protection projects such as the orbital. In particular, the guidelines state:

“Through the development and investigation of options, the land requirements to support the infrastructure project can be identified. All public consultation on corridor options will be led by the agencies. It is the agencies responsibility to provide sufficient detail about the corridor options at this time, so that the community can be informed about the implications of each option and is given the opportunity to participate in the process of determining the preferred corridor alignment. Once the preferred alignment has been identified and assessed, statutory protections can be created which can assist delivery of the infrastructure project in the future”.

Council encourages Transport for NSW to have an ongoing commitment to work with Council and the community, to ensure that any future transport planning initiatives (including corridor protection) are implemented through a collaborative engagement process; and in particular, that more information is made available regarding the corridor options.

Camden 'Community Strategic Plan'

Council notes the *Draft Strategic Environmental Assessment* report (*Appendix B-2*) for the OSO corridor study refers to Council's previous vision for the Camden LGA i.e. *Camden 2040*.

It is important that Transport for NSW has regard to the current community vision as adopted by Council on 21 June 2017 i.e. *Community Strategic Plan – Shaping the Camden Local Government Area June 2017*.

Council's *Community Strategic Plan* identifies the community's main priorities and aspirations for the future (at least 10 years), and the plans and strategies for achieving these goals. Its strategies regarding effective and sustainable transport include:

4.1.1 Ensure provision of adequate transportation network facilities available across the Camden LGA (bus, railway, walking, cycle and car);

4.2.1 Promote and raise awareness of public safety and sustainable forms of transport for pedestrians, people with disabilities, cyclists and motorists;

4.2.2 Ensure the long-term asset management of roads and road-related infrastructure are maintained and advocated for, across the Camden LGA.

A copy of Council's *Community Strategic Plan* is **attached** to this submission, for future reference.

Council's Submission to NSRL and SWRL Extension Corridor Identification

It is noted that the NSW Government has concurrently exhibited the *Outer Sydney Orbital Corridor Identification* project, with the *North South Rail Line and South West Rail Link Extension Corridor Identification* project.

Council's submission in response to the *North South Rail Line and South West Rail Link Extension Corridor Identification* project is provided to Transport for NSW **under separate cover**. Council requests that consideration is given to both its submission documents, in evaluating the cumulative impacts of transport corridor identification in the Camden LGA.

OSO Transport Corridor

1. Recommended corridor

- Council acknowledges the strategic significance of an OSO Transport Corridor, and the need for the NSW Government's early identification and preservation of its alignment. However, Council does not support the exhibited surface (at-grade) OSO corridor alignment due to the adverse impact it would have upon the Camden LGA. Council could only support the OSO project if the future orbital (i.e. road and rail) corridor is provided underground, wherever it is likely to directly impact existing residential and commercially occupied property, as well as land of heritage and environmental significance.

If the exhibited corridor is unable to be undergrounded, Council insists that Transport for NSW review the alignment to address the issues raised in this submission, and re-exhibit the amended corridor for further comment.

With regard to the potential impacts on all landowners/residents within/in proximity to the proposed corridor, Transport for NSW's *Draft Strategic Environmental Assessment* report for the Orbital notes the following;

'Unavoidable property impacts due to localised circumstances or based on the need to balance social, environmental and engineering considerations have been weighted against other, often more detrimental impacts, of alternative alignments partially at a regional scale'.

While the merit-based approach taken by Transport for NSW is noted in determining a recommended alignment for the proposed corridor, this rationale provides little (if any) comfort to residents/landowners impacted by the proposal. For all the projected benefits associated with an OSO, it also has the potential to divide communities; both in a physical sense, and from a social-fabric perspective. Therefore, Council strongly recommends the undergrounding of the OSO wherever it impacts existing/established residential, commercial, heritage and environmental land; to reduce the severance of communities, both existing and future.

- Further to Council's conditional support for the orbital project subject to its future provision underground, Council acknowledges there may be some counter to this point by the NSW Government (and/or other stakeholders) based on the resulting cost implications of building this substantive infrastructure in tunnel; and consequently, whether a partially underground orbital would be financially viable.

It may be reasonable to note that over the last 20 years, the NSW Government has developed an increasing level of knowledge and experience in the provision of transport infrastructure connections (road and rail) underground. With ongoing projects such as WestConnex and NorthConnex, and potential future improvements in technique and technology advancements in the provision of transport underground, the cost and complexities for constructing tunnels may continue to reduce to a point, that merits further investigation for the orbital project.

The most salient point to make on this matter is the NSW Government's intent to tunnel part of the NSRL, between Oran Park and Narellan (through to Macarthur). As noted in Council's submission to Transport for NSW in 2015, Council continues to support the undergrounding of the NSRL in this location, to mitigate any adverse impacts to the existing community, residents and landowners.

The section of rail line proposed by Transport for NSW to be underground (between Oran Park and Macarthur) is approximately 11.5km in length. It may therefore be reasonable to conclude that in addition to minimising the negative impact on the community between these locations, that notwithstanding 11.5km of undergrounding the rail line, it is anticipated the project will be viable from a cost-benefit analysis perspective.

Council estimates that the section of the proposed orbital corridor that is most likely to have an adverse impact through the Camden LGA on existing residents, landowners, environment, heritage etc. is also approximately 11.5 km in length (from north of Cobbitty village, through to the southern point of the Camden LGA boundary). It should be noted that the length of any tunneling may be shorter when there is lessened need to avoid surface locations of a sensitive nature.

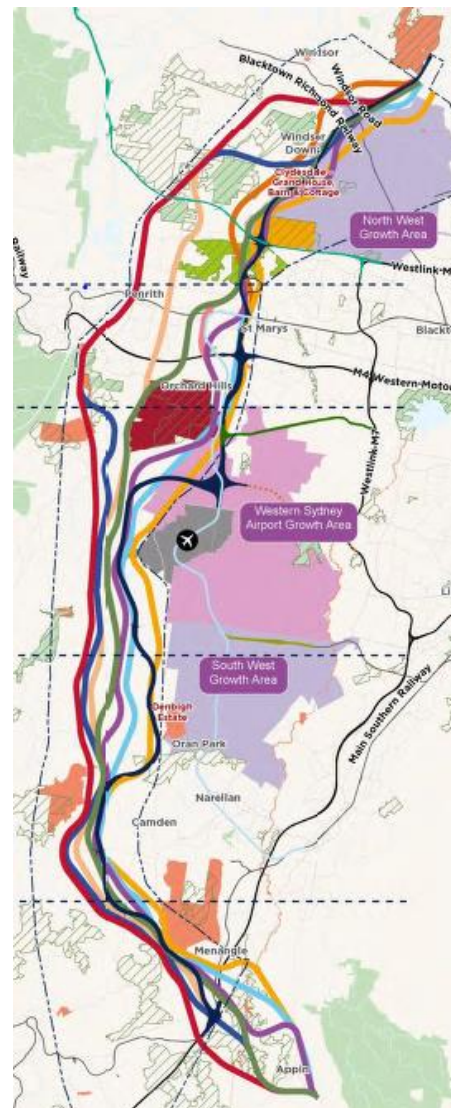
It is acknowledged that the proposed orbital corridor (road and rail) will be wider than that of the NSRL, resulting in greater cost implications. However, the length of the corridor itself does not appear to be an impediment on the basis of the proposal to underground the rail line. The anticipated economic benefits generated from the orbital's connection between the WSA site, with major intra and inter-state road network connections, would be significant enough as to justify the investment by both the NSW and Australian Governments.

- Council is concerned as to the timing for delivery of a strategically significant road corridor such as the OSO. The NSW Government's *Future Transport Strategy 2056* indicates an 'investigation' timeframe of 10-20 years. This infers the possibility that further investigation (beyond the corridor protection phase) for the OSO may not commence until 2036, well in-excess of the proposed opening date of the WSA, and to a point of significant urbanisation of the Western Parkland City. The investigative timeframe for the OSO needs to continue with a defined timeframe for corridor protection and especially land acquisition (if it is an 'at-grade' corridor), and construction.
- As part of its visionary initiatives for NSW and the Greater Sydney Region, to facilitate the successful delivery of integrated transport infrastructure, Transport for NSW should consider a vision for the OSO that:
 - Develops a well-connected, well-designed and free-flowing road network supported by appropriate infrastructure for a growing City that provides effective movement of people and goods within the local area and broader region;
 - Prioritises the delivery of roads and transport infrastructure (identified as part of the NSW Government Special Infrastructure Contribution Levy (SIC) for the South West Priority Growth Area (SWPGA)) early in the development of new urban and industrial areas to ensure the community have appropriate access;

- Ensures the provision of road and transport infrastructure is coordinated with the delivery of other infrastructure, delivered by both NSW and local governments; and
- Builds and improves transport linkages to/from the orbital corridor through effective planning, partnerships and joint action.

The detailed planning of the proposed orbital corridor route should maximise the use of existing public land, to reduce impacts on existing residential properties, and seek to reduce severance issues on individual allotments.

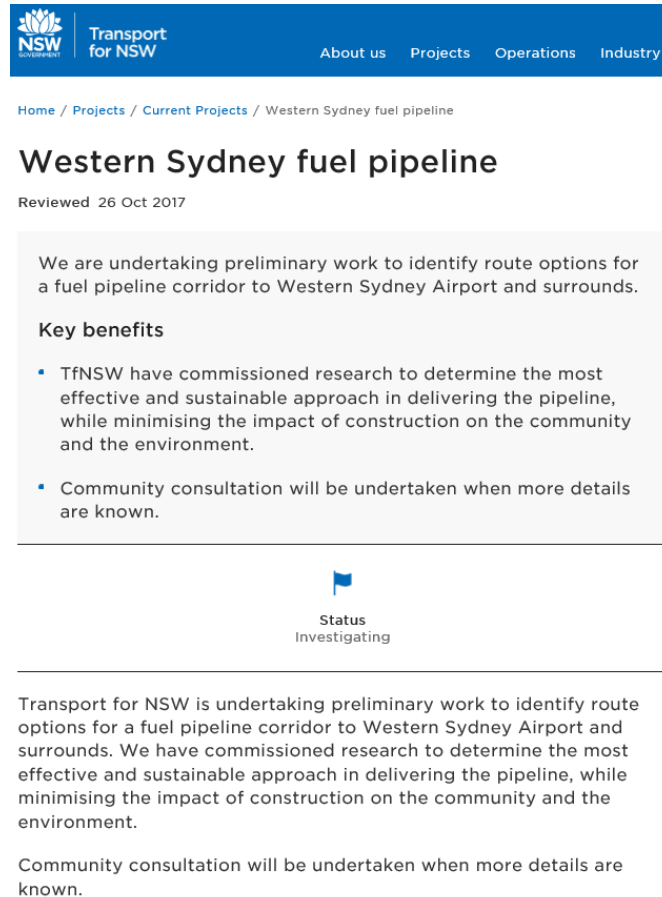
- Reference is made to the long list options drafted by Transport for NSW for the proposed orbital corridor, on page 35 of the *Draft Strategic Environmental Assessment* report (as per the adjacent map). Further to the constraints and opportunities identified for the recommended corridor in table 7 (page 36) of the report, Council recommends that further cost-benefit analysis would greatly assist all concerned stakeholders, in gaining an understanding of the rationale applied to selecting the recommended corridor, compared to the others noted in the long list options. For example, as part of its Review of Environmental Factors for the Northern Road/Bringelly Road Grade Separated Interchange project, Roads & Maritime Services (RMS) developed a series of options, each of which explored a weighting of preference compared to several different criteria. A similar analysis would inform the community and Council in understanding why the recommended corridor was selected compared to other options, and on what basis.



- Reference is made to the comment in the *Draft Strategic Environmental Assessment* report that the orbital corridor “will ultimately connect Western Sydney to the Illawarra and the Central Coast” (*Executive Summary – page ii*). Council acknowledges the strategic significance of this comment, but questions the intended timing for its further investigation. With the rapid projected growth in the ‘Greater Macarthur Growth Area’, it is imperative that the full extent of an orbital corridor is identified as early as possible. Therefore, Council recommends a concurrent investigation into the protection of a corridor alignment from Western Sydney through to the Illawarra area.

- Council notes that Transport for NSW, as part of the infrastructure planning associated with the Australian Government's development of the WSA, are continuing their investigation into a Western Sydney fuel pipeline.

(Source: Transport for NSW website - March 2018)



The screenshot shows the Transport for NSW website page for the Western Sydney fuel pipeline project. The page header includes the NSW Government logo and navigation links for About us, Projects, Operations, and Industry. The breadcrumb trail is Home / Projects / Current Projects / Western Sydney fuel pipeline. The main heading is "Western Sydney fuel pipeline" with a review date of 26 Oct 2017. The content states that preliminary work is being undertaken to identify route options for a fuel pipeline corridor to Western Sydney Airport and surrounds. Key benefits listed include: TfNSW have commissioned research to determine the most effective and sustainable approach in delivering the pipeline, while minimising the impact of construction on the community and the environment; and Community consultation will be undertaken when more details are known. A status indicator shows a blue flag icon and the text "Status Investigating". A detailed paragraph repeats the information about preliminary work and research, and another paragraph repeats the statement about community consultation.

Clarity is sought as to whether it is anticipated that any part of the OSO (or the NSRL and SWRL Extension) corridor will accommodate the Western Sydney fuel pipeline; and if so, the location, timing and availability of an Environmental Impact Assessment report. If the fuel pipeline is not intended to be co-located with the orbital or rail corridors, Council requests earliest possible advice on its intended alignment, and whether it impacts the Camden LGA.

Council recommends that Transport for NSW:

- Notes that Council does not support the exhibited surface (at-grade) OSO corridor alignment due to the adverse impact it would have upon the Camden LGA, and acknowledges that Council can only support to the OSO project if the future orbital corridor is provided underground, wherever it is likely to directly impact existing residential/commercial occupied property, as well as land of heritage and environmental significance.

- Notes that if the exhibited corridor is unable to be undergrounded, Council would seek that Transport for NSW review the alignment to address the issues raised in this submission, and re-exhibit the amended corridor for further comment.
- Continue with investigation of the OSO and determine a timeframe for corridor preservation, acquisition and construction.
- Conduct a concurrent investigation into the protection of a corridor alignment from Western Sydney through to the Illawarra area.
- Make available to Council and the Camden LGA community, cost-benefit analysis and weighting criteria used for the 'long list options'.
- Provide advice as to the proposed corridor alignment for the future Western Sydney fuel pipeline to the WSA site, and whether it impacts the proposed OSO (as well as the NSRL and SWRL Extension) corridor, and/or any other part of the Camden LGA.

2. Land use and property impacts

- The importance of preservation for the strategic OSO is acknowledged; combined with other corridors throughout Western Sydney e.g. NSRL, it will form an integral part of Sydney's need for a functional transport network.

Notwithstanding the importance of this corridor, it is also noted that the sterilisation of land once transport corridor options are defined highlights the need to determine a clear timetable for acquisition, beyond the statutory planning protections. This will provide greater certainty around the approach to development applications involving significant capital investment, and a degree of certainty for residents and landowners.

In proceeding with the identification of any transport corridor option alignments which propose the preservation of an 'at-grade' corridor via statutory planning controls, the need for a clear and timely program for land acquisition is important. Implications for the sterilisation of land resulting from at-grade corridor preservation will be significant for certain landowners.

Transport for NSW's information brochures state, with regard to land acquisitions for the corridor:

There is no intention or need to immediately acquire land or property.

Strategies

1.1.1 Ensure provision of appropriate urban development for sustainable growth in the Camden LGA

1.1.2 Manage and plan for a balance between population growth, urban development and environmental protection

1.1.3 Ensure adequate, accessible and high quality open and public space is made available across the Camden LGA

1.2.1 Ensure rural land and associated landscape impacts are addressed.

Source: Camden Community Strategic Plan – June 2017

Acquisition normally occurs close to when the infrastructure is to be built, and this could be years or decades in the future.

There may be cause to dispute these statements – some landowners may see there is an express need for immediate acquisition of their land or property, to provide them with certainty for what is often their most significant asset/investment.

As to the point of land acquisition occurring closer to the construction date, the Australian Government’s example of acquiring land for the WSA site over several decades demonstrates that early land acquisition for significant infrastructure projects is common, and provides certainty for all stakeholders.

Transport for NSW would be aware that landowners had previously purchased land within the draft SWRL corridor alignment, and subsequently faced degrees of uncertainty regarding interim use, securing finance etc. as a result. Coupled with other associated issues, such as a potential change in how the subject land is valued (thus having an impact on the value of Council Rates), this may have an adverse financial impact for certain landowners.

Creation of an OSO corridor has the potential to provide an implied boundary to the western extent of the Sydney metropolitan area (i.e. the Western Parkland City). This has the potential to define Western Sydney’s growth, and place pressure on existing rural areas that have proximity to emerging urban areas (as per the adjacent map with the area defined within the red line). This could have a number of adverse implications for future land use, accessibility and value of land.



- The currently proposed orbital corridor alignment requires a number of road and waterway crossing points (including significantly flood affected areas in proximity to the Nepean River), the demolition of existing, recently developed properties and the acquisition of undeveloped lots. These costs in addition to the construction, maintenance and operation of the orbital corridor are likely to be considerable. Transparency of costs and an understanding of where most of these costs lay, balanced with the expected social and economic impacts and benefits is considered key information for all stakeholders to evaluate a clear rationale for the proposed corridor.
- A cost-benefit analysis should not only be conducted and made public for the proposed surface alignment, but should also be completed for a potential underground route which avoids existing residential and commercial development/property. It is recognised that an option which undergrounds a section of the orbital is likely to be a more expensive approach to that proposed, but this cost must be directly balanced against the following considerations:
 - Reduced adverse impacts on the amenity of existing and future residents;
 - A shorter run of the corridor which brings construction cost savings;

- Lower levels of compensation costs, as minimal land and property acquisition would be required;
- Avoidance of construction costs associated with spanning the corridor over the flood-prone land and significant waterbodies e.g. Nepean River, and avoid numerous road crossing points;
- Increased support from the public and Council due to reduced visual and amenity impacts, and lower levels of general disturbance from construction to existing residents; and
- Avoidance of harm to the existing ecological communities and particularly threatened species.



Nepean River

A comparative cost-benefit analysis between the surface and an underground orbital corridor would enable an open and transparent public conversation on the costs and benefits between the two options.

This cost-benefit analysis should be complemented with an economic and employment strategy, which highlights the job creation benefits of both the construction and operation of the orbital, to reinforce both the economic and employment benefits generated by the proposal.

- As a consequence of the proposed alignment, particularly given it is intended for construction ‘at-grade’, the orbital corridor currently contradicts some of the planning elements articulated for Western Sydney in the Greater Sydney Commission’s ‘*Western City District Plan*’. Following are examples of the inconsistencies identified between the orbital corridor and the District Plan:
 - The *Western City District Plan* states that “*maintaining and enhancing the distinctive character of each rural and bushland town and village is a high priority*”. The proposed interchange at Cobbitty Road, and associated increase in traffic, is likely to adversely affect the rural setting in Cobbitty.
 - The proposed orbital corridor runs through the ‘Metropolitan Rural Area’ (MRA) and, through fragmenting certain parts of this rural area, is inconsistent with *Action 78* of the *Western City District Plan* - “*Maintain or enhance the values of the Metropolitan Rural Area using place-based planning to deliver targeted environmental, social and economic*

outcomes”. The MRA provides both an important local cultural and economic function in being maintained in perpetuity.

Actions	Responsibility
78. Maintain or enhance the values of the Metropolitan Rural Area using place-based planning to deliver targeted environmental, social and economic outcomes.	Councils and other planning authorities
79. Limit urban development to within the Urban Area, except for the investigation areas at Horsley Park, Orchard Hills, and east of The Northern Road, Luddenham.	Councils, other planning authorities, State agencies and State-owned corporations

(Source: Western City District Plan March 2018)

- The proposed orbital corridor is inconsistent with *Action 79* of the *Western City District Plan* - “*Limit urban development to within the Urban Area...*”. The proposed orbital corridor means that the surrounding rural lands may potentially be earmarked for either enhanced development or speculative intensification of additional development. It does not restrict development to the urban areas, as required by the District Plan.

In response to these identified points, Council recommends that Transport for NSW work further with Council and the Greater Sydney Commission to address the identified concerns and problems regarding the relationship between the proposed corridor and the intent of the *Western City District Plan*.

Rural Lands Strategy and Rural Land Study

It is Council’s intention to preserve rural lands throughout the Camden LGA in applying the following planning principles as identified in the Rural Lands Strategy

1. *Protect Camden’s remaining rural lands;*
2. *Retain Camden’s valued scenic and cultural landscapes;*
3. *Provide certainty and avoid rural land fragmentation;*
4. *Minimise and manage rural land use conflict;*
5. *Enhance Camden’s Rural Economy;*
6. *Minimise unplanned non-agricultural development; and*
7. *Maximise opportunities for relocation of rural enterprises.*

Council recommends that these planning principles are robustly assessed in identifying the proposed OSO alignment. This assessment should also include consideration of the future direction of growth to ensure the OSO corridor alignment enhances and doesn’t stifle anticipated future growth in Western Sydney i.e. providing greater certainty to the local community and facilitating growth in appropriate locations. Any such process should occur concurrently with the Structure Plan review for the SWPGA, and in collaboration with Council.

The proposed orbital corridor contradicts principle 1 ‘*Protect Camden’s remaining rural lands*’ and principle 3 ‘*Provide certainty and avoid rural land fragmentation*’ by dividing the remaining agricultural land currently in use. The proposed corridor may increase development speculation which puts additional pressure on the future fragmentation and rezoning of rural land.

In contradiction with principle 2 '*Retain Camden's valued scenic cultural landscapes*', the proposed OSO corridor traverses a number of rural properties which contribute significantly to the rural amenity of Cobbitty, Ellis Lane and Grasmere more broadly. The proposed corridor also crosses the Nepean River, impacting a significant natural feature in the Camden LGA.

Cobbitty and Cut Hill sits topographically above the proposed corridor which runs along the west and south of the village. Council's *Rural Lands Study*, which informed the *Rural Lands Strategy*, identified important views to and from Cobbitty. The proximity and encompassing size of the corridor detrimentally affects these views. Any proposed vegetation screening of the orbital corridor is not likely to mitigate this adverse impact.

Council recommends that Transport for NSW:

- On reserving the future transport corridors (rail and road) via statutory planning controls, proceed to implement a timely land acquisition strategy (if the corridor is 'at-grade'), and clarify permissible interim uses, with a view to circumventing any adverse planning outcome on any impacted landowner.
- Robustly assess the planning principles enshrined in Council's '*Rural Lands Strategy 2017*', in reviewing the proposed OSO alignment.
- As part of the further investigation into the OSO, that Transport for NSW develop a thorough cost-benefit analysis for the proposed project, and that this information be made publicly available as part of a subsequent consultations stage with affected stakeholders.
- Work further with Council and the Greater Sydney Commission, in addressing the identified concerns relating to Metropolitan Rural Areas of Western Sydney (e.g. Cobbitty) and the problems associated with how the corridor relates to the intent of the *Western City District Plan*.

3. Loss of agricultural land

- Agricultural production in the Camden LGA is significant. Camden is a significant producer of grapes for wine, cauliflowers, lettuce, cultivated turf, sheep and lambs, dairy cattle, beef cattle and crops and pastures for hay. Further, tourism in the Camden LGA is important financially to the rural sector, with strong growth potential.
- Agricultural and rural land use currently accounts for 50% of the Camden LGA. The development of the South West Growth Area for urban purposes will reduce the total amount of agricultural and rural land to 33% of the LGA. The proposed OSO corridor will reduce this even further.

- Camden Council adopted its *Rural Lands Strategy* in 2017 which was informed by Council's *Rural Land Study*. The Rural Land Study identifies the importance of the remaining rural and agricultural lands to the Camden LGA and the Sydney metropolitan area more broadly.

The study area identified in Map 7 (page 30) of the Rural Land Study is bisected by the proposed corridor. This study area includes a large amount of Class 1, 2 and 3 agricultural land which can sustain agricultural and horticultural land uses.

Map 10 (page 35) and Table 5 (page 36) provide a breakdown of the land use types within the study area identified in the Rural Land Study as follows:

Land Use	Area (ha)
Cropping	65
Grazing	4,318
Horticulture	105
Intensive animals	16
Native vegetation	1,494
Other	536
Perennial horticulture	82
Urban	70
Total	6,686

A breakdown of the value of production of key rural and agricultural industries in the Camden LGA (page 43 of the Rural Land Study) is as follows:

Land Use	Value (\$m)
Nurseries, cut flowers and cultivated turf	7.8
Vegetables	10.3
Eggs	3.9
Poultry	18.6
Cattle	1.3
Other	1.6
Total	43.5

Whilst a specific breakdown is not available for the area affected by the corridor, the proposed location of the corridor within Class 1, 2 and 3 agricultural lands will reduce the agricultural output of the Camden LGA.

Regarding principle 5 '*Enhance Camden's Rural Economy*' of Council's Rural Land Strategy, there are a number of agricultural properties within proximity to the WSA which are affected by the corridor. By impacting this agricultural land, the corridor affects the ability for the delivery of fresh produce to and from the proposed WSA. The loss of agricultural land will mean that products will need to travel further for exportation, increasing 'food miles'.

Transport for NSW must investigate the impact of the proposed corridor upon Council's remaining agricultural lands which play an important role in Sydney's food

supply and the rural history and character of the Camden LGA, including impacts upon Camden’s local economy as a result of the impacts upon agricultural enterprise.

Council recommends that Transport for NSW:

- Investigate the impact of the proposed corridor upon Council’s remaining agricultural lands which play an important role in Sydney’s food supply, Camden’s economy, and the rural history and character of the Camden LGA.
- As part of the further investigation into the OSO, that Transport for NSW develop a thorough cost-benefit analysis for the proposed project with which includes the impacts upon the agricultural economy, and that this information be made publicly available as part of a subsequent consultations stage with affected stakeholders.

4. Traffic and transport

- The current orbital alignment depicts a number of intersection points (interchanges) to the local road network, within/adjacent to the Camden LGA. While east/west connections such as Burragorang Road and Greendale Road may be considered appropriate given their proximity to the WSA and other complimentary land-use types, Council questions the merit of other potential connections to the OSO, such as Cobbitty Road, and other future road connections to the SWPGA (e.g. Marylands Link Road, Lowes Creek Link Road).



Source: Transport for NSW – Western Sydney Corridor Collaborative Map

It is acknowledged that one of the key objectives of the OSO is to provide a ‘regional’ transport corridor on the edge of the Greater Sydney Region. In preserving the OSO’s functional integrity, while at the same time protecting adjacent local road networks, it is important that the number and location of interchanges are determined based on sound transport planning (supported by traffic modelling). For example, regarding the Camden LGA local road network, it may be reasonable to surmise that commercial/industrial generated traffic movements (as well as commuter trips) from the southern areas of the LGA (e.g. Smeaton Grange), may use an interchange at Burragorang Road or Remembrance Driveway to access the OSO. Equally, vehicle trips from the northern areas of the LGA may use the Greendale Road interchange to access the OSO. In support of any interface between the OSO and Camden LGA local traffic movements, it is envisaged that as a ‘Primary Arterial Road’, the Northern

Road in its upgraded form will work as functional conduit between a future regional transport corridor and the local road network.

As noted elsewhere in Council's submission, regarding Council's *'Rural Lands Strategy – 2017'*, it is important that the OSO corridor enhances and doesn't stifle appropriate land-use. There is some potential for an adverse outcome in this regard, through the provision of multiple interchange points along the OSO corridor in proximity to future rural land use.

Council recommends as part of the corridor protection process that any future determined orbital alignment includes a planning process for connection points to the local road network e.g. identification of the extent of land required to design functional interchanges, inclusive of funding mechanisms to ensure that these roads (e.g. Burratorang Road and Greendale Road) are upgraded to a standard required to service a major motorway.

- As part of Transport for NSW's investigation into corridor protection, it is necessary to conduct contingent infrastructure planning as part of the process. For example, the eventual timing and scale of the WSA and Badgerys Creek Aerotropolis, while not altogether an unknown quantity, is an emerging objective, subject to any number of influencing factors that may alter its timeline, scope, degree of success etc.

For the OSO to successfully achieve its potential, it requires an adaptable approach to infrastructure planning by way of support (which the NSW Government has sought to achieve through the *Western City District Plan* and *Future Transport Strategy 2056*). However, this should also include a proactive approach to contingent planning; a series of 'what if' plans that account for emerging variables.

- In keeping with the key issues advocated throughout Council's submission, the importance in determining an orbital corridor is highlighted through the need for a justified methodology used in assessment against the very criteria and objectives set out in the governments *Future Transport Strategy 2056*, *Greater Sydney Region Plan* and *Western City District Plan*. In doing so, a structured evaluation framework will optimise any return on investment in infrastructure to the greater benefit of Western Sydney, while at the same time demonstrating how decisions are made to select one orbital alignment, compared to any of the others identified.

As previously noted in Council's submission, examples such as RMS' cost-benefit analysis of the Northern Road/Bringelly Road Grade Separated Interchange project, provided a working example of the NSW Government demonstrating a transparent option selection process. A similar approach should be completed and/or disclosed by Transport for NSW, regarding the 'long list options' developed for the orbital corridor. This step would demonstrate the rationale applied to selecting a recommended corridor, while explaining the selection method to all affected stakeholders.

Source: Camden Community Strategic Plan – June 2017

Strategies

4.1.1 Ensure provision of adequate transportation network facilities available across the Camden LGA (bus, railway, walking, cycle and car)

4.2.1 Promote and raise awareness of public safety and sustainable forms of transport for pedestrians, people with disabilities, cyclists and motorists

4.2.2 Ensure the long term asset management of roads and road related infrastructure are maintained and advocated for, across the Camden LGA.

- Reference is made to the following statement in the *Draft Strategic Environmental Assessment* report;

Traffic modelling should be undertaken to inform the growth and change on the traffic network as the design develops. Once the traffic demand has increased and the need for the OSO is realised, further traffic investigations should be pursued.
(page 118)

Council recommends that detailed traffic modelling is conducted by Transport for NSW, to ascertain the projected impacts from the OSO. This should also include the cumulative impacts from the proposed WSA, as it is Council's understanding that this information has not been prepared by either the NSW Government nor the Australian Government for these major infrastructure projects.

Council recently prepared a traffic model for the Macarthur area that projected anticipated 'pinch-points' on the local road network. To ensure the integrity of this planning information, it is imperative that the NSW Government re-visit models such as the previously drafted '*South West Priority Growth Road Network Strategy*'; these transport planning strategies should reflect the proposed cumulative impacts for the local road network resulting from the OSO, NSRL, WSA etc. The following local roads will be directly impacted by the current OSO alignment;

- Chittick Lane, Cobbitty.
 - Cobbitty Road, Cobbitty.
 - Ellis Lane, Ellis Lane.
 - Burragorang Road, Bickley Vale.
 - Dowles Lane, Bickley Vale.
 - Westbrook Road, Bickley Vale.
 - Fosters Lane, Bickley Vale.
- Transport for NSW's *Future Transport Strategy 2056* notes the NSW Government's intent to explore future mobility options such as 'Connected and Autonomous Vehicles' (CAVs), or electric-powered heavy freight motor vehicles (trucks) as part of a future transport network. While such technology is outside the remit of local government, future development of autonomous vehicles will likely utilise parts of the proposed orbital, and the local road network in the care and control of Council. Future investigation as to the extent required (i.e. width) of an orbital corridor is warranted, regarding the potential impact from transport technology advancements such as CAVs. In this regard, Transport for NSW is encouraged to investigate further, and engage with our community, to literally take them 'on the journey' of how CAVs may ultimately become an integral part of future transport options.

Council recommends that Transport for NSW:

- As part of the corridor protection process, any future determined orbital alignment includes a planning process for connection points to the local road network i.e. Burragorang Road and Greendale Road, inclusive of funding mechanisms to ensure that these roads are upgraded to a standard required to service a major motorway.

- Incorporate into the *Draft Strategic Environmental Assessment* report a series of contingent planning strategies, which account for an array of 'what if' scenarios in guiding transport planning decisions.
- Prepare (or release existing) information on the cost-benefit rationale used between the 'long list options' identified for the corridor, to explain in further detail how the recommended corridor was selected (in comparison to the other identified options).
- Conduct detailed traffic modelling to ascertain the projected impacts from the OSO, and the cumulative impacts from other major projects e.g. WSA, on the local road network.
- Investigate further what impact alternate transport methods (CAVs, electric-powered trucks) will have on transport corridor requirements, and engage further with our community in this regard.

5. Socio-economic impacts

- The potential adverse social impacts associated with the OSO are reflected in recent community group activity in the Camden LGA, and other parts of Western Sydney. For example, the 'Outer Sydney Orbital Macarthur Action Group' established a dialogue forum via social media, that involved the sharing of information, coordination of activism initiatives and advocacy.

One element that emerged from this community action group was a clear picture of the acute social impacts associated with the orbital and rail corridor protection projects. This clearly highlights the community sentiment of the corridor protections proposed, and how it is affecting both individuals and the collective community.

In this regard, further to ongoing active community engagement, Council recommends that Transport for NSW expand its *Draft Strategic Environment Assessment* report for the OSO, to robustly investigate the 'human health' impacts of the corridor protection projects.

For example, the Australian Government prepared an extensive report (as part of the *Environmental Impact Statement*) into the anticipated implications for human health resulting from the proposed WSA. A similar initiative by Transport for NSW for the corridor protection projects would be suitably appropriate, prior to proceeding any further with corridor protection.

Community Impact: Example – Teen Ranch

Teen Ranch has a long history in the Cobbitty and broader Macarthur area of providing an important social amenity to the community, particularly the youth population. It continues to play a vital role in this regard, and remains a part of the social fabric of the area.

The current 'resident directors' of Teen Ranch have written to Council, expressing a range of concerns on the potential impacts of the proposed orbital on the facility, including (but not limited to), lack of consultation, reduced amenity, impediment to

ongoing operation of facilities; they note the real affect a proposed orbital would have on both people and place.

Further investigation is required into the adverse impacts from the orbital corridor on social services in the Camden LGA such as Teen Ranch, in weighting the social benefits they provide to the community and evaluating the overall human health impacts associated with the proposed orbital project.

Community Impact: Example – Compensation and Land Acquisition via *Just Terms Compensation Act 1991*

From the community impacted by the proposed orbital corridor, an acute level of concern exists regarding properties within, and in proximity to, the current corridor alignment.

With regard to properties in proximity to the proposed corridor (but not within it), Council is aware that affected owners questioned Transport for NSW at a community drop-in session on the lack of compensation arrangements for their property. The concerns they raised relate to the potential loss in value of their property as a direct result of the proposed corridor (through adverse impacts such as loss of visual amenity, noise, air pollution etc.), and the absence of any mechanism to compensate for this potential loss. There may also be complications associated with 'Capital Gains Tax' resulting in the context of these particular circumstances.

For those property owners within the proposed corridor, in addition to the prospect of losing all or part of their property through the orbital project, there is emerging concern as to the complexities associated with compulsory acquisition via the 'just terms' compensation process. Council notes that for any landowner not familiar with this process, it can seem complicated and overwhelming.

As part of an expanded assessment of the cumulative 'human health' impacts of the proposed corridor, Council recommends Transport for NSW take a proactive role of engagement with the affected community, to ascertain the implications of:

- The effect that the proposed orbital corridor might have on the social fabric of the communities they directly impact, including the amenities and activities through which social exchanges occur e.g. Teen Ranch, churches, other community groups;
 - How the issue of compensation might be addressed for impacted property owners in proximity to the proposed orbital corridor that are not subject to compulsory land acquisition; and
 - An early intervention of engagement with landowners within the proposed orbital corridor, that includes access to independent advice/guidance on navigating the compulsory land acquisition process.
- With the projected population growth, both Australian and NSW government investment in transport infrastructure e.g. OSO, WSA, North South Rail etc. will influence core planning objectives including affordable housing, connectivity, liveability, resilience and sustainability. Effective land-use and transport integration is required to ensure growth and investment outcomes occur as a result in Western Sydney.

It is noted that one of the key criteria of the NSW Government's *Future Transport Strategy 2056* is to facilitate sustainable and efficient economic development of Sydney's metropolitan region i.e. "a transport system that powers our future \$1.3 trillion economy". Congestion and extended travel times are widely regarded as one of the greatest barriers to productivity in developed economies. For example, in Australian capital cities, the estimated avoidable cost of urban traffic congestion is \$12.9 billion (2010) and by 2020 it is expected to cost over \$20 billion (Source: Bureau of Transport, Infrastructure and Regional Economics).

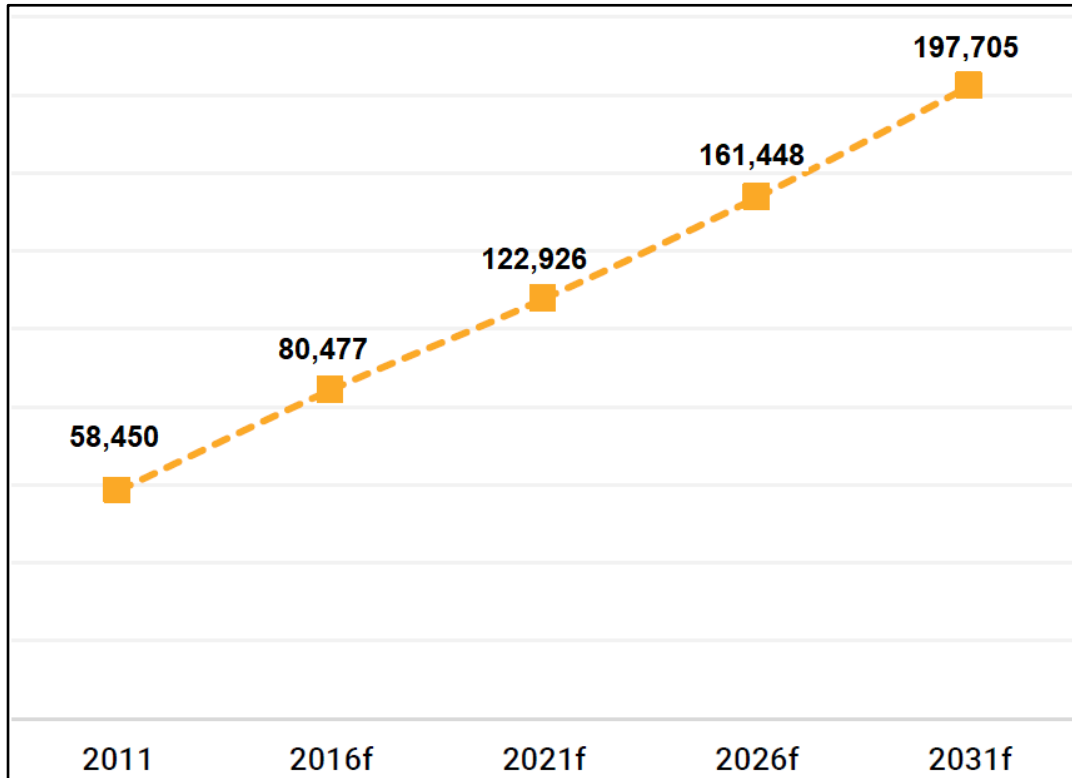
Council is in support of the NSW Government's vision of a system to support the growing economy of Greater Sydney, acknowledging that strategic transport infrastructure such as the OSO can play a pivotal role in alleviating urban congestion. Travel times in Western Sydney can be up to 2 hours in each direction for some commuters. Reduced congestion and improved travel times are therefore a benefit of investment in an orbital corridor.

- Council acknowledges the role transport and a corridor such as the OSO would play for tourism in NSW, with Western Sydney and the Camden LGA being no exception. Council's 'Camden LGA Destination Management Plan – February 2016' notes the following regarding the role infrastructure plays in supporting tourism:

5.1.2 Growing Region – Inadequate Infrastructure Support

The following figure demonstrates the population growth which is anticipated to occur in the Camden LGA over the period 2011 – 2031. Over this period, the total region's population is anticipated to grow by 174% (adjusted to 240% as at 2018), increasing from 58k to 162k (adjusted to 197k as at 2018). This is important to note as it helps support many tourism businesses.

Feedback received from stakeholders indicated that whilst the region is recognized as an important growing residential area, the infrastructure support by way of roads, public transport services and community infrastructure (such as sporting and arts facilities) is struggling to keep up and as the LGA continues to grow, this issue will only intensify.



This insight reaffirms that the impact of transport is far-reaching, and has a considerable impact on economic activity through tourism in NSW. Council encourages Transport for NSW to actively pursue its transport planning objectives in support of the visitor economy, and to work collaboratively with Council in this regard.

Council recommends that Transport for NSW:

- Expand its *Draft Strategic Environment Assessment* report for the OSO, to robustly investigate the 'human health' impacts of the corridor protection projects, including assessment of options such as:
 - What impact the corridor might have on the social fabric of the communities they directly impacted;
 - How the issue of compensation might be addressed for impacted property owners in proximity to the proposed orbital corridor, that are not subject to compulsory land acquisition; and
 - An early intervention of engagement with landowners within the proposed orbital corridor, that includes access to independent advice/guidance on navigating the compulsory land acquisition process and any other associated implications e.g. Capital Gains Tax.
- Engage directly with Council and the Camden LGA community in working on an integrated transport and land-use planning approach, in conjunction with the Greater Sydney Commission.

6. Heritage

- As noted in the Office of Environment & Heritage 'Local Government Heritage Guidelines', Council acknowledges its important role in retaining heritage of local and national significance. The following points expand on the potential heritage implications resulting from the proposed corridor.

4.2 THE ROLE OF LOCAL COUNCILS

The focus of heritage management in New South Wales has changed since the introduction of the *Heritage Act* in 1977. Today, local councils play an important role in heritage management by identifying, assessing and managing heritage places and items in their local government area. They fulfil their role through the preparation of local environmental plans, development control, strategic planning, heritage promotion and education. All of these activities are conducted under the Environmental Planning and Assessment Act.

(Source: Office of Environment & Heritage)

The proposed orbital corridor through Ellis Lane to Cobbitty will:

- directly impact Local Heritage Item I93 Pomare Grove (Teen Ranch); and
 - directly impact Local Heritage Item I148 Weir.
- The alignment will bisect Local heritage item I93 Pomare Grove and will impact the extent to which the affected land parcels contribute to the significance of the item, effectively alienating the land from the item. The built form of the completed roadway will be an intrusive element within the site and will have a continuing negative impact on the item through construction and operation of the proposed orbital.
 - The maximum flood line is at a contour height of 73m on the heritage item Pomare Grove and through the corridor alignment at Ellis Lane on the southern side of the Nepean River. The extent of this structure on the southern side of the Nepean River will compromise the setting of heritage items aligned along Cobbitty Road and will be visible from Local Heritage Item I99 Wivenhoe (if an overpass/bridge over flood affected areas is constructed).
 - The proposed corridor alignment sits over the Local Heritage Item I148 Weir which has an associated significance with the State significant item Upper Canal System. Consideration will need to be given to ensuring the works associated with the proposed orbital do not impact the original fabric of the original dam.
 - The setting of the following heritage items will also be impacted:
 - Local Heritage Item I148 Weir;
 - Local Heritage Item I99 Wivenhoe;
 - Local Heritage Item I91 St Paul's Church Complex;
 - Local Heritage Item I94 Chalker's Cool room;
 - Local Heritage Item I92 St Paul's Church;

- Local Heritage Item I90A Cobbitty Public School;
 - Local Heritage Item I90 Blacksmiths;
 - Local Heritage Item I63 St John's Church; and
 - State Heritage Item Denbigh (Sydney Regions Growth Centres SEPP).
- The proposed corridor alignment through Ellis Lane to Cobbitty is anticipated to have heritage impacts, once physical commencement of works is initiated. This is likely to result in an impact to the setting of the above items, due to:
 - the alignment being across flood-prone land: and
 - a large overpass will (potentially) be required to span the 100-year and probable maximum flood lines.
 - Wivenhoe will also be affected by orbital structures, use, noise, and associated works. Wivenhoe is a locally listed Item of State heritage significance located east of the corridor alignment as it crosses the Nepean River, bisecting local item Pomare Grove. This item has not been identified in the *Draft Strategic Environmental Assessment* report. The curtilage of this item in the vicinity of the alignment is above the height of the maximum flood line and it is likely that the corridor will impact views from this item over the Nepean River.
 - The alignment of the proposed orbital north of Cobbitty Road will impact the setting of Denbigh. Denbigh is a State significant item and the proposed corridor will have a direct visual relationship to the homestead. This impact is considered to be intrusive in the context of the items cultural landscape and heritage significance, and will impact the visual relationship between the homestead and Cobbitty village.



Denbigh
(Source:
NSW
Heritage
Office)

- The alignment of the proposed corridor through Ellis Lane will impact the cultural landscape of both Cobbitty and the Camden town centre heritage conservation area, by impacting the visual relationship and associated significance established by the State Heritage Register, including the nominated St John's Anglican Church precinct and St Paul's Anglican Church, Cobbitty. Both of these churches are constructed in the Gothic style of architecture and have landmark qualities within the region. The visual relationship established by both churches spires, across the

Nepean River demonstrates the connection between the early townships of Camden and Cobbitty.

These views are significant in the context of both townships as the benefactors of each church, Thomas Hassall of Denbigh for St Paul's and the Macarthur family for St John's, were early European settlers who made significant contributions to the townships of Cobbitty, Narellan and Camden as well as to the colony of NSW.

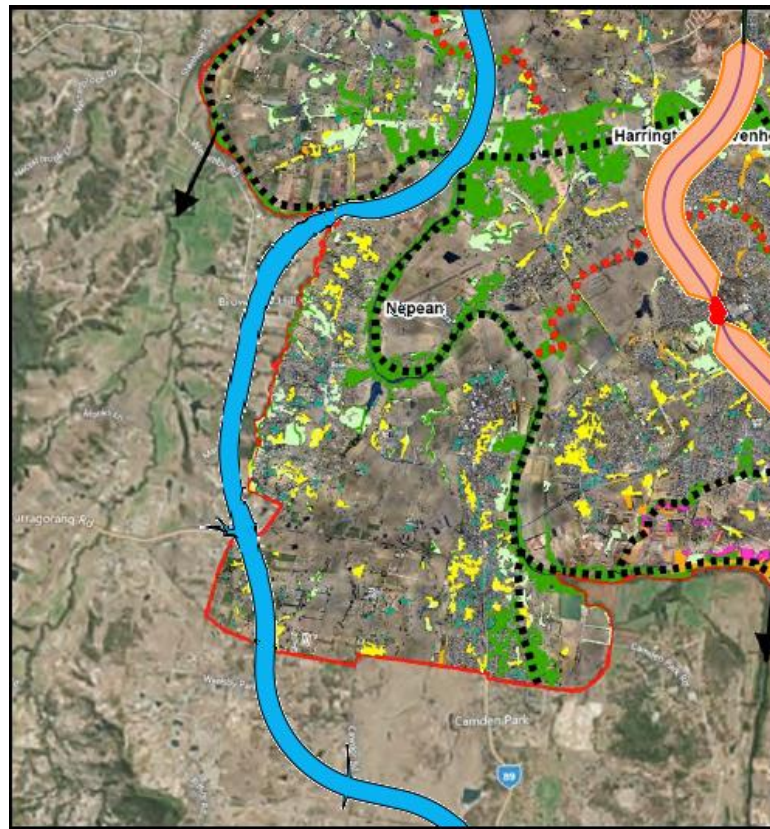
Council recommends that Transport for NSW:

- Conduct a comprehensive review of the heritage components of the *Draft Strategic Environmental Assessment* report for the proposed corridor.
- Prepare a detailed heritage study with regard to 'Section 4 – Cobbitty to Camden Park' of the proposed corridor prior to gazettal, to determine the potential impacts of the proposed orbital on heritage items within and surrounding the corridor.

7. Biodiversity and air quality

Biodiversity

- Council notes that the recommended alignment of the orbital corridor is likely to have significant impacts on the natural environment within the Camden LGA, including the suburbs of Cobbitty and Bringelly. Transport for NSW's *Draft Strategic Environmental Assessment* report states that the '*...recommended corridor aims to avoid, wherever possible, sensitive ecological areas...*' (page 3), however the proposed alignment would result in adverse impacts on regionally significant biodiversity corridors, 'Critically Endangered Ecological Communities' and threatened plant species.
- The *Local Biodiversity Strategy for Camden Local Government Area 2013* (Local Biodiversity Strategy) identifies biodiversity corridors as priority areas for conservation within the Camden LGA. Corridors promote opportunities for species movement and long-term viability in an urban bushland setting, and provide a greater chance of species surviving events such as land clearing, wildfires, fluctuating food supply or human induced habitat changes. The Cobbitty Hills corridor is identified within the Local Biodiversity Strategy as a significant (high priority) corridor, as it contains the 'Critically Endangered Ecological Community Cumberland Plain Woodland'. The proposed preservation zone for the orbital would result in vegetation clearance and the fragmentation of this ecologically significant biodiversity corridor within Cobbitty.



Legend

 Camden Local Government Area	Conservation Significance Status
 Regional Biodiversity Corridors	 1. Critically Endangered
 Local Corridors	 2. Core Habitat - Regionally Significant
 OSO corridor	 3. Core Habitat - Locally Significant
 SWRL Extension	 4. Support for Core
	 5. Other Native Vegetation
	 N/A

(Source: Local Biodiversity Strategy Camden Local Government Area 2013)

- The Local Biodiversity Strategy recommended that a Biodiversity Masterplan be developed for the Cobbitty Hills area. Council’s *State of the Environment Report 2015/16* (SoE) also highlighted that a masterplan for the Cobbitty Hills area was a Council priority to achieve conservation of the significant biodiversity corridor. Consequently, the ‘Caring for Cobbitty Hills’ project was launched by Council in 2016 in partnership with Greater Sydney Local Land Services and Eco Logical Australia (who were engaged for consultancy services). The aim of this project was to prepare a masterplan for the Cobbitty Hills area and engage local landholders in conservation initiatives. Through community engagement, Council worked with a number of landholders with remnant native vegetation on their property, to provide them with specialist advice on ways to conserve their land and generate income through conservation i.e. bio-banking. The masterplan is still in a draft phase and highlights the proposed orbital as a significant threat to conservation of the biodiversity corridor.

- The 'Biodiversity Investment Opportunities Map' (BIO Map) was developed by the NSW Office of Environment and Heritage. A specific Cumberland BIO Map was developed for the Cumberland subregion which encompasses the biodiversity values of the Camden LGA. The Cumberland BIO Map identifies Priority Investment Areas (PIAs) within the Cumberland subregion and this consists of core, State biodiversity corridors and regional biodiversity corridors. Regionally and locally significant core habitat is found throughout the Cobbitty and Bringelly areas. These biodiversity corridors are important as they provide key linkages of native vegetation within and between 'Interim Biogeographic Regionalisation for Australia' (IBRA) subregions, as well as between significant biodiversity features. The recommended alignment of the proposed orbital would impact on these regionally significant biodiversity corridors through resultant habitat loss and fragmentation.
- The *Draft Strategic Environmental Assessment* report states that the width of the recommended corridor varies between 200m and 300m, which could cause a significant road block for wildlife traversing through the area. This may cut off animals from food and shelter, and populations may have trouble dispersing which could lead to small and genetically isolated populations. The inclusion of fauna crossings in the concept plan would facilitate wildlife movement through the corridor and be used as a stepping-stone by wildlife to reach other corridors. Fauna bridges would allow animals to cross the barrier safely not to endanger the animals and motorists. Fauna crossings could consist of underpasses, overpasses or rope bridges and would help mitigate the impacts of the development on native wildlife.
- The *Draft Strategic Environmental Assessment* report states that "...impacts within the recommended corridor which cannot be avoided will need to deliver biodiversity offsets in other areas" (page 131). Cumberland Plain Woodland offsets are in high demand and as development in the area continues, it is becoming harder to secure as offsets. The extensive development within the SWPGA and future development of the WSA will utilise a large portion of the already degraded and fragmented Cumberland Plain Woodland areas available for offsetting. The recommended alignment of the "...corridor passes through approximately 124 ha of non-certified land, including approximately 21 hectares of ENV" ...(page 81). This again will place strain on the offset targets for the project and place further pressure on the depleted areas available for offsetting. Therefore, with the proposed alignment of the orbital requiring vegetation clearance of Endangered Ecological Communities (EEC's), appropriate areas to offset these impacts (preferably in the Camden LGA) need to be confirmed prior to the finalisation of the proposed corridor alignment.
- Consideration also needs to be directed towards the Nationally and State listed threatened plant species *Cynanchum elegans* and the State listed plant species *Marsdenia viridiflora* located in the path of the proposed orbital corridor alignment. A search of the NSW Office of Environment and Heritage 'BioNet Wildlife Atlas' identified six records of *Cynanchum elegans* found throughout the Cobbitty area and five records of *Marsdenia viridiflora* located in the Bringelly area. The most significant threats to both threatened species is the clearing of habitat due to urban development. The recommended alignment of the proposed orbital passes through these areas and could result in habitat loss and local extinction of the threatened species.

- The *Draft Strategic Environmental Assessment* report states that the proposed orbital corridor alignment avoids the Mater Dei Biobanking site, however, a portion of the preservation zone traverses the north-western corner of the biobank site. This would need to be offset and appropriate areas for offsetting need to be identified. This alignment of the corridor also isolates the Mater Dei BioBank site from surrounding biodiversity corridor networks.

BioBanking is a way in which landholders with remnant native vegetation can conserve this in perpetuity and generate income through conservation. Under the new *Biodiversity Conservation Act 2016* (BC Act), BioBanking agreements are now referred to as Biodiversity Stewardship Agreements. The potential Cumberland Plain Woodland biodiversity credits within the suburbs of Cobbitty and Bringelly are mostly located within private land. These biodiversity credits have the potential to provide offsets for development within the SWPGA (including the OSO).

Council has received submissions from landholders who participated in the 'Caring for Cobbitty Hills' project who are impacted by the recommended OSO alignment. These landholders were in the process of investigating the option of establishing a BioBank agreement for their property and are concerned as to how the corridor may impact this process. Therefore, further consultation with landholders who are impacted by the development needs to be conducted to provide clarity and accurate information to assist them in determining whether BioBanking is a viable option. These valuable biodiversity credits should also be considered in the Biodiversity Offset Strategy for the development and the proposed alignment should take into account the location of valuable biodiversity credits to ensure the development can be offset and not result in a net loss of Critically Endangered Ecological Communities.

Council also notes that the South Creek corridor has been identified within the City Deal as an important environmental spine for the Western City, requiring restoration and protection. Without sufficient detail available in the SEA, Council insists that Transport for NSW give careful consideration to any possible impacts on this vital part of our region and continues to engage with Council and the community.

Air Quality

- On the issue of air quality in the Camden LGA, the following information is noted in Council's SoE report;

“Due to the geography and meteorology of the Sydney basin, south-west Sydney experiences higher levels of air pollution in comparison to the remainder of the Sydney Basin. The key factors contributing to the concentration of emissions in south-west Sydney are exacerbated by the temperature inversions and calm wind conditions, especially in winter, which trap pollutants close to the ground surface and inhibit the dispersal of emissions.

Current practices and lifestyle choices have an impact on the composition of the gases in the air. Human activities such as land clearing, industrial production, use of private motor vehicles, use of wood fire heaters, consumption of household energy and lawn mowing generate many air pollutants, locally,

regionally and globally. These include sulphur dioxide, nitrous oxide, carbon dioxide, ozone, hydrocarbons, particulate matter and odours”.

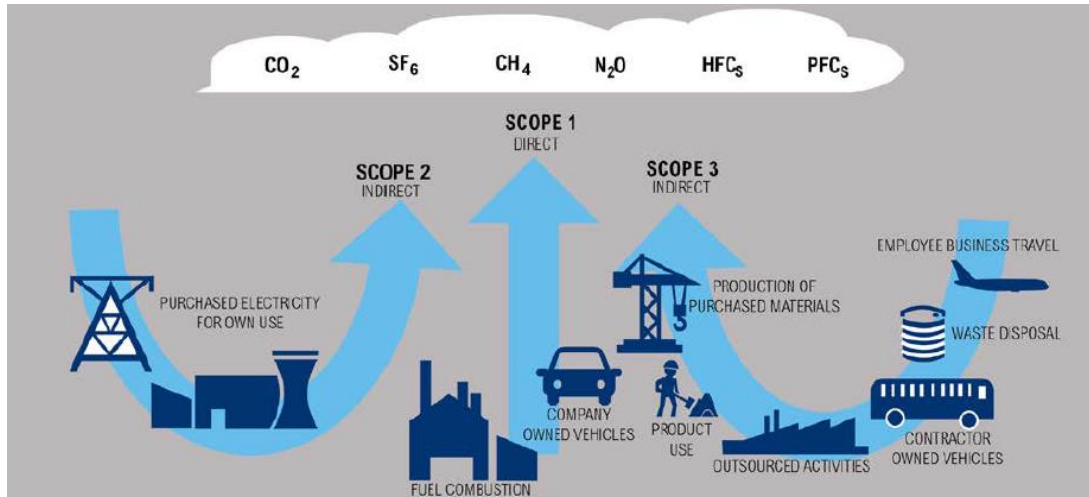


Figure 12-2 Overview of the three scopes and emissions sources across a reporting entity

Source: WSA EIS Chapter 12: Air quality and greenhouse gases

To expand on these statements, it has long been documented (e.g. Environmental Impact Statements for the Badgerys Creek site for the WSA) that the ‘Sydney Airshed’ is located within the valleys and estuaries of three major river systems of Sydney; being the Georges, Parramatta and the Hawkesbury/Nepean, and is surrounded by mountains in the south and west. Air movement in the Sydney Airshed is essentially circular – moving west on the prevailing wind during the day, draining northward down the valleys at night, eastward to the coast in the early morning then returning inland. Because of this circular pattern, parcels of air become entrained in the flow, the same parcels crossing back over the metropolitan area, accumulating pollutants and returning the following day to the Hawkesbury Basin.

During times of stable weather, and when temperature inversions occur, this cycle can go on for days or weeks with pollutants either emitted within the basin or transported into it from the east being retained rather than dispersed. Thus, the capacity of the Hawkesbury Basin to disperse pollutant emissions is less than that of the eastern sectors of the Sydney Airshed.

The Camden LGA comprises an area of land approximately 206km², the greater part of which lies within a topographic basin within the Sydney Airshed known as the Camden Basin. This Basin lies within the Hawkesbury Basin and is bounded on the north by a series of low hills to the west of South Creek and on the west, east and south by the 100m contour. While of only shallow depth (approximately 40m) the Camden Basin is an important sub-region in local air quality considerations because of its ability to trap and inhibit the dispersion of low level air emissions.

The Camden Basin is subject to extremely stable air conditions at night resulting from deep strong temperature inversions and is completely decoupled from the flow of air above thus allowing trapped air to deteriorate within the Basin until the inversion has lifted and sufficient wind flow occurs to displace it.

In the absence of clear analysis as part of the environmental assessment of the proposed orbital corridor, it may be reasonable to conclude that an accurate picture of what happens with air chemistry, and in fact air quality, within the Camden Basin has not yet been established.

- Further to the previous points, it is important that Transport for NSW conducts an Environment Impact Assessment that critically evaluates the potential impacts on air quality in the Camden LGA from a proposed orbital, inclusive of the cumulative impacts of other major infrastructure projects proposed for Western Sydney e.g. WSA.

Given the air quality issues identified above, it is important that Transport for NSW conduct an Environmental Impact Assessment as part of the process for protecting the orbital corridor. Any existing or future community member in the Camden LGA (and surrounds), that suffers from asthma, respiratory diseases etc. is particularly vulnerable to poor standards of air quality. As a result, it is important that these human health impacts are quantified prior to proceeding with this project – it is the role and responsibility of Government to always act in the best interest of human health.

Council recommends that Transport for NSW:

- Identify appropriate areas (preferably in the Camden LGA) to offset vegetation clearance of EEC's such as Cumberland Plain Woodland, with the areas confirmed prior to the finalisation of the proposed corridor alignment;
- Conduct a detailed assessment of the existing flora and fauna species including targeted surveys for threatened species (*Cynanchum elegans* and *Marsdenia viridiflora*), to guide the alignment of the proposed orbital corridor;
- Consider fauna bridges across the proposed orbital corridor to allow fauna movement throughout the area; and
- Conduct an Environment Impact Assessment that critically evaluates the potential impacts on air quality in the Camden LGA from the proposed orbital, inclusive of the cumulative impacts of other major infrastructure projects proposed for Western Sydney e.g. WSA.
- Consider any possible impacts upon the South Creek corridor which has been identified within the City Deal as an important environmental spine for the Western City, requiring restoration and protection

8. Surface water and flooding

- Pursuant to the future protection of a confirmed alignment, construction of an OSO is likely to involve an extensive number of significant structures (e.g. bridges, culverts etc.), that will have a range of different impacts on the surrounding landscape. This would also include any associated hydrology implications, having potential flow-on effects for flooding in the Camden LGA. Transport for NSW's *Draft Strategic Environmental Assessment* report on the proposed corridor states:

“There is also potential for local increases in the flow rate and flow velocities, especially at bridge piers and embankments located in the floodplain. These impacts would occur both within and outside the corridor”. (page 132)

Council requests confirmation from Transport for NSW that any future provision of an orbital would have no adverse impacts on the upstream catchment associated with the Nepean River (and associated creek systems).

- To ensure a comprehensive evaluation of potential flooding implications as part of the corridor protection phase of the orbital project, it is imperative that Transport for NSW carries out a flood impact assessment of the proposed corridor. The flood impact assessment should also consider the Probable Maximum Flood (PMF).

Council recommends that Transport for NSW re-visit the hydrology assessment in its *Draft Strategic Environmental Assessment* report for the orbital corridor, with a view to evaluating what impact the corridor will have on flood levels (including the PMF level) and how a PMF would impact on any proposed corridor.

- Further to Council’s previous comment regarding flooding impacts resulting from bridge structures, reference is made to a currently proposed crossing point of the Nepean River by the orbital corridor, as depicted below:



The red arrow depicts a potential bridge/viaduct of an approximate span in-excess of a 3km length, across the Nepean River, between Cobbitty Road and Ellis Lane. A large section this bridge/viaduct would be greater than 10 metres above existing ground level. Such a structure would have considerable visual amenity and flooding implications for the area.

Council recommends that Transport for NSW comprehensively evaluate via a revised *Draft Strategic Environmental Assessment* report for the orbital corridor, as to the impacts of a structure of this size at this location.

(Source: *Strategic Environmental Assessment – page 87*)

Council recommends that Transport for NSW:

- Confirms that any future provision of an orbital would have no adverse impacts on the upstream catchment associated with the Nepean River;
- Re-visit the hydrology assessment in its *Draft Strategic Environmental Assessment* report for the orbital corridor, with a view to evaluating what impact the corridor will have on flood levels, including the PMF level, and how a PMF would impact on any proposed corridor; and

- Comprehensively evaluate, via a revised *Draft Strategic Environmental Assessment* report for the orbital corridor, as to the impacts of a bridge/culvert structure at the crossing point of the Nepean River.

9. Landscape and visual amenity

- The currently proposed orbital corridor alignment requires a number of road and waterway crossing points, the demolition of existing, recently developed properties and the acquisition of undeveloped lots. These costs in addition to the construction, maintenance and operation of the OSO are likely to be considerable. Transparency of costs and an understanding of where most of these costs lay, balanced with the expected social and economic impacts/benefits is considered key information for the community and key stakeholders to evaluate a clear rationale for the proposed development.



Source: Camden Council Annual Report 2015/16

A cost-benefit analysis should not only be conducted and made public for the proposed corridor alignment, but should also be completed for any potential underground route which avoids either existing residential areas or precincts currently under development. It is acknowledged that any underground options are likely to be a more costly approach, but this cost must be directly balanced against the following considerations:

- Reduced adverse impacts on the amenity of existing and future residents and landowners;
- A shorter, more direct corridor alignment would result in some construction cost savings;
- Lower levels of compensation costs as minimal land and property acquisition would be required; and
- Increased support from the community and Council due to reduced visual and amenity impacts and lower levels of general disturbance from construction to existing residents.

A comparative cost-benefit analysis between a surface and underground approaches would enable an open and transparent public conversation on the costs and benefits between the two options.

This cost-benefit analysis should be complemented with an employment strategy, which highlights the job creation benefits of both the construction and operation of the proposed orbital, to reinforce both the economic and employment benefits generated by the proposal.

- While it is acknowledged that Transport for NSW are currently only evaluating the protection of an orbital corridor (and not its construction), it is important to have

regard to its eventual physical construct in the context of adverse impacts to landscape and visual amenity.

For example, a future road/rail corridor of this scale would require extensive noise attenuation treatment along part (if not all its extent). This is likely to result in the existence of a noise barrier of considerable height, that will emerge as a 'wall' within parts of the Camden LGA community.

As to the construction of a noise barrier for the future, the RMS document '*Acoustic Principles of Noise Wall Design in NSW*' (page 7: - *RMS Noise Wall Design Guideline – March 2016*) states:

The height of the barrier is also significant – as a general rule a barrier should at least be high enough to dissect the line between appoint anywhere 1m above the road surface (on both carriageways) and as a point 1.5m above the floor of an adjacent residence.

In general, the higher the barrier, the greater the level of noise reduction. On multi-lane road the noise from the furthest traffic lanes will not be reduced as much as that from the near lanes of the different path angles.



The RMS guidelines essentially concludes a higher barrier will reduce noise impacts while potentially diminishing visual amenity – and that the character of the local landscape needs to be understood. In this regard, Council strongly recommends Transport for NSW conduct an extensive Landscape and Visual Amenity assessment prior to proceeding with protection of the corridor.

- Transport for NSW's *Draft Strategic Environmental Assessment* report on the proposed orbital makes the following statement regarding visual amenity:

7.82 Management and mitigation considerations

Protection

The protection of the recommended corridor would not have a material visual impact on the existing environment. No mitigation or management measures are recommended.

Environmental impact assessment

Future phases...to provide a clear summation of the likely landscape and visual impacts for a recommended design, and provide opportunities arising from this for a further, more detail level of refinement. It is anticipated this would require additional consideration of visual impacts on key viewpoints.

It may be reasonable to dispute this statement i.e. suggesting the protection of the corridor would not have a material visual impact on the existing environment. It is clear the intent for the protection of any corridor is ultimately to result in the physical construction of a significant piece of infrastructure. Therefore, protection of the

corridor warrants a holistic assessment of the landscape and visual amenity impacts prior to its protection.

- Council notes that the scale of the OSO will be significant in transforming the existing landscape. It is essential therefore that appropriate steps are taken in planning for this change, including:
 - Investigation of further underground options and that appropriate mitigation measures are fully utilised to limit adverse impacts on visual amenity, built form and urban design.
 - A continued collaborative approach to integrated land-use and transport planning, particularly regarding identifying development density in proximity to the future the orbital corridor.
 - Conducting a holistic assessment to evaluate the cumulative impacts of the many large-scale infrastructure projects in Western Sydney, as to how they may adversely affect visual amenity, built form and urban design in the Camden LGA.

For example, the proposed corridor adjoins the rear of northern properties at Ellis Lane, and other points in the Grasmere area. These and other properties (e.g. Denbigh Estate) currently enjoy expansive views of the rural landscape. The proposed corridor would have significant adverse visual amenity impacts on these properties. In this regard, a holistic assessment of the proposed corridor is strongly recommended, particularly with a view of its location underground where it impacts these types of residential areas.

Council recommends that Transport for NSW:

- Conduct a comparative cost-benefit analysis between a surface and underground approaches (with a view to mitigate adverse landscape, visual amenity and community impacts) which would enable an open and transparent public conversation on the costs and benefits between the two options.
- Conduct an extensive Landscape and Visual Assessment, that includes the implications for construction of the orbital (not just its protection).
- Complete a holistic Environmental Impact Assessment for the adverse implications on landscape and visual amenity from the orbital, prior to the protection of the corridor.
- Conduct a holistic assessment to evaluate the cumulative impacts of the OSO, in the context of other major infrastructure projects in Western Sydney e.g. NSRL, SWRL Extension, WSA etc.

10. Soil and geology

- Council notes Transport for NSW's *Draft Strategic Environmental Assessment* report states that "Mine subsidence would pose a geotechnical risk where the recommended corridor passes through active mining areas of the Southern Coalfield". Considering this point, it is acknowledged that a field investigation is needed in forming a mine subsidence management plan, through liaison with the Mine Subsidence Board.

In the context of investigating part of the OSO corridor being in tunnel, the issue of soil and geology (particularly regarding mine subsidence) is important. Council recommends that Transport for NSW conduct preliminary field investigations for the extent of corridor options, including geotech survey, to ascertain the integrity of conditions underground to determine their capacity to accommodate OSO infrastructure.

Council recommends that Transport for NSW:

- Conduct preliminary field investigations for the extent of corridor options, including geotech survey, to ascertain the integrity of conditions underground to determine their capacity to accommodate OSO infrastructure.

11. Noise and vibration

- Through the extent of community feedback received by Council regarding the proposed orbital, it is evident that the issue of noise and vibration is significant for affected residents and landowners. Considering this evidence, it is concerning to note the following statement from Transport for NSW's *Draft Strategic Environmental Assessment* report:

"Ground-borne noise and vibration have not been considered in this assessment. It is expected that both ground-borne noise and vibration impacts would be contained to within the extent of the recommended corridor, thereby not impacting sensitive receivers outside the corridor and requiring no strategic mitigation. A detailed assessment of both ground-borne noise and vibration impact should be undertaken during the future Environmental Impact Assessment and mitigation in the form of rail track form design will be considered at that time". (page140)

The claim that mitigation of noise and vibration impacts are "expected" to be contained within the corridor is inadequate. The potential adverse implications for all affected residents and landowners warrant a comprehensive Environmental Impact Assessment prior to protection of any orbital corridor. Council recommends that Transport for NSW conduct an impact assessment (which states the type and magnitude of impact, both pre-mitigation and post-mitigation) on noise and vibration as a matter of urgency, and consult further with all affected stakeholders.

- As part of an Environmental Impact Assessment for noise and vibration resulting from the proposed orbital corridor, Council recommends it evaluate the cumulative impacts resulting from other significant infrastructure projects in its proximity e.g. WSA, NSRL, SWRL Extension etc.

Example – Noise impacts from WSA

The current absence of defined flight paths and other airspace management strategies articulated in the *WSA Environmental Impact Statement* and technical documents highlights a key concern for Council regarding noise assessment in the Camden LGA. The effect of this absence is that the flight paths used for the modelling may change at the time operations commence for Stage 1 of the proposed airport. This creates significant uncertainty as to the modelling presented and the assessment of what areas and how many people will be affected by aircraft noise, combined with ground-noise and vibration from the proposed orbital corridor. There has not been any sensitivity analysis as to the cumulative impacts of flight paths and other major ground-based infrastructure in proximity to what is planned as **a 24-hour international airport in Western Sydney**.

There has been no assessment of the potential scale or severity of community annoyance that is likely to result in reaction to aircraft noise. This point is also highlighted in the *WSA Health Risk Assessment*. This issue is particularly relevant to the Camden LGA; whilst there are small areas in the north of Cobbitty and Bringelly that fall within areas designated as affected using standard aircraft noise criteria (e.g. ANEC/ANEF, N70 and N60 contours) there are much greater areas of the LGA that will be exposed to aircraft noise, that is less than these criteria. Further work is required by both Transport for NSW and the Australian Government (regarding the WSA development) to respond to this issue.

- In preparing an Environmental Impact Assessment for the proposed orbital corridor, it is recommended that Transport for NSW conduct multiple rating background levels across all receptors (i.e. at multiple locations along the corridor, for a broad cross-section of receptor types). This should ensure that the assessment clearly discerns the noise and vibration impact from the proposed orbital, and how it has different impacts upon residential property, compared to schools, compared to agricultural land, compared to commercial land etc.

Transport for NSW should ensure that an Environment Impact Assessment has a brief that extends beyond noise sensitive receptors for only existing communities. It is important there is a representation of potential future sites of other noise sensitive receptors i.e. residential areas, schools, parks etc. in proximity to the proposed orbital corridor. For example, this data should be re-modelled using the final SWPGA Structure Plan, to identify future community locations.

Council recommends that Transport for NSW:

- Prepare an Environmental Impact Assessment for the proposed orbital as a matter of urgency (which states the type and magnitude of impact, both pre-mitigation and post-mitigation) on noise and vibration, and consult further with all affected stakeholders.

- Evaluate the cumulative impacts resulting from other significant infrastructure projects in its proximity e.g. WSA, NSRL, SWRL Extension etc.
- Conduct multiple noise-rating background levels across all receptors (i.e. at multiple locations along the corridor, for a broad cross-section of receptor types).